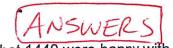
Thursday, June 4, 2015 Algebra 2 Bellwork

- 1. A world-wide company took a poll of 1600 employees and found that 1440 were happy with their current position.
- a. Find the sample proportion as a percent rounded to the nearest tenth.
- b. Find the margin of error to the nearest tenth of a percent.
- c. Find the range of values that most likely contains the population proportion for the percent of employees that are happy with their current position.
- d. If the company has a total of 58,000 employees find the interval for the actual number of employees that are happy with their current position.
- 2. A poll of registered voters has a margin of error of ±2%. Find the sample size to the nearest whole number.

Thursday, June 4, 2015 ANSWERS Algebra 2 Bellwork



- 1. A world-wide company took a poll of 1600 employees and found that 1440 were happy with their current position.

a. Find the sample proportion as a percent rounded to the nearest tenth.

$$\frac{1440}{1600} \times 100 = \frac{90\%}{1}$$

b. Find the margin of error to the nearest tenth of a percent.

$$\pm \frac{1}{\sqrt{1600}} \times 100 = \pm 2,5\%$$

c. Find the range of values that most likely contains the population proportion for the percent of employees that are happy with their current position.

$$90\pm 2.5 =$$

87.5% +0 92.5%

d. If the company has a total of 58,000 employees find the interval for the actual number of employees

that are happy with their current position.

$$58,000 (.875)$$
 $58,000 (.875)$
 $53,650 emplayees$

2. A poll of registered voters has a margin of error of $\pm 2\%$. Find the sample size to the nearest whole number.

$$\left(\frac{1}{\ln n}\right)^{2} = (.02)^{2}$$

$$\frac{1}{\ln n} = (.02)^{2} \Rightarrow \text{ cross muct} \qquad n = 2500$$

$$\text{sample size}$$